

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
 TATSUYA IWASAKI, ET AL.)
 Application No.: Unassigned)
 (This is a divisional of Appln.:
 No. 09/276,667, filed March 26,)
 1999, now allowed.))
 Filed: Concurrently Herewith :
 For: NANOSTRUCTURE, ELECTRON : May 31, 2001
 EMITTING DEVICE, CARBON)
 NANOTUBE DEVICE, AND :
 METHOD OF PRODUCING THE)
 SAME :

Commissioner for Patents
Box New Application
 Washington, D.C. 20231

PRELIMINARY AMENDMENT

Preliminary to examination on the merits,
 Applicants respectfully request that the above-identified
 application be amended in the following manner:

IN THE SPECIFICATION:

Please insert the following sentence on page 1,
 line 5 of the specification:

--This is a divisional of U.S. Patent Application
 No. 09/276,667, filed March 26, 1999, and allowed March 5,
 2001.--.

IN THE CLAIMS:

Please cancel Claims 1-25 without prejudice to or disclaimer of the subject matter contained therein.

All claims currently in this application, whether amended or not, are being reproduced below for the Examiner's convenience.

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26. (Not Amended) A method of producing a nanostructure comprising an anodized film including a nanohole on a substrate having a surface containing at least one material selected from the group consisting of semiconductors, noble metals, Mn, Fe, Co, Ni, Cu and carbon, said nanoholes passing through said anodized film from the surface of said anodized film to the surface of said substrate, wherein said method comprising the steps of:

(i) forming a film containing aluminum on the substrate having a surface containing at least one material selected from the group consisting of semiconductors, noble metals, Mn, Fe, Co, Ni, Cu and carbon; and

(ii) anodizing said film containing aluminum, wherein in step (ii) the anodization is conducted while monitoring an anodization current and the anodization of said film containing aluminum terminates when a reduction in said anodization current from a steady-state value is detected.

27. (Not Amended) A method of producing a nanostructure according to Claim 26, wherein the anodization terminates when the anodization current is decreased from the steady-state value of 95% or below of the steady-state value.

28. (Not Amended) A method of producing a nanostructure according to Claim 26, wherein an anodization

voltage applied to said film including aluminum is supplied from the substrate side.

29. (Not Amended) A method of producing a nanostructure according to Claim 26, further comprising the step of expanding the diameter of the nanoholes by means of etching, after completion of said anodizing step.

30. (Not Amended) A method of producing a nanostructure according to Claim 26, further comprising the step of forming an anodization starting point on the surface of said film including aluminum prior to said anodizing step.

31. (Not Amended) A method of producing a nanostructure according to Claim 30, wherein a recessed portion serving as said anodization starting point is formed on said film including aluminum prior to said anodizing step.

32. (Not Amended) A method of producing a nanostructure according to Claim 26, further comprising the step of embedding an inclusion into said aluminum oxide nanoholes after said anodizing step.

33. (Not Amended) A method of producing a nanostructure according to Claim 32, wherein the embedding of the inclusion is performed by means of electro-deposition.

34. (Not Amended) A method of producing a nanostructure according to Claim 33, wherein the surface of said substrate includes a high-resistance part, and wherein said method further comprises the step of converting said surface at the bottom of the nanohole into a low-resistance surface prior to the electro-deposition.

35. (Not Amended) A method of producing a nanostructure according to Claim 34, wherein the surface of said substrate includes a silicon oxide and said surface is etched with an aqueous solution containing hydrofluoric acid or an alkaline aqueous solution.

36. (Not Amended) A method of producing a carbon nanotube device, comprising the steps of:

forming a film including aluminum on a substrate having a surface including an n-type semiconductor region;

anodizing said film including aluminum over the entire thickness thereof so as to form an anodized film having a nanohole;

electro-depositing a catalytic fine particle on the surface at the bottom of said nanohole; and

growing carbon nanotubes from said catalytic fine particle in the nanohole.

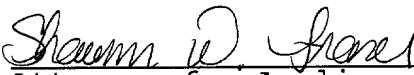
REMARKS

This is a divisional application of U.S. Patent Application No. 09/276,667, filed March 26, 1999, and allowed March 5, 2001.

Claims 26-36 are being presented for examination on the merits. Claims 26 and 36 are the independent claims. Claims 1-25 have been cancelled without prejudice or waiver of their subject matter and no claims have been added. Favorable consideration and early passage to issue of the above-identified application is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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MARKED-UP VERSION OF THE CLAIMS

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Application No.: Divisional of 09/276,667
Attorney Docket No.: 35.G2364 Div. I

MARKED-UP VERSION OF THE SPECIFICATION

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TO THE ATTORNEY